



# MI Flu Focus

Influenza Surveillance Updates  
Bureaus of Epidemiology and Laboratories



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Surveillance and Infectious Disease Epidemiology

September 27, 2012  
Vol. 9; No. 38

## Updates of Interest

- **Michigan:** Updated 2012-13 influenza guidance documents for healthcare providers, laboratories and Local Health Departments [are posted](#).
- **National:** The number of H3N2v influenza remained at 305 this week.

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## **\*\*H3N2v Influenza Update\*\***

Since August 15, MDCH has reported 6 confirmed human cases of variant influenza A (H3N2) (H3N2v). Michigan cases have come from Clinton(1), Ingham(1), Shiawassee(2) and Washtenaw(2) counties. The first five cases have had mild illness and have had either direct or indirect swine exposure at county fairs in Michigan; an investigation is underway regarding the sixth case. Updated Michigan case counts of confirmed H3N2v infections will be posted every Friday on the MDCH Influenza Website: [www.michigan.gov/flu](http://www.michigan.gov/flu). In addition, 305 human cases of H3N2v have been reported in association with swine exposure since July 2012 in 9 other states. Current information on this situation and updated case counts can be found on the CDC H3N2v website at [www.cdc.gov/flu/swineflu/influenza-variant-viruses-h3n2v.htm](http://www.cdc.gov/flu/swineflu/influenza-variant-viruses-h3n2v.htm). Please call the MDCH Division of Communicable Disease at (517) 335-8165 with any questions.

## **Influenza Surveillance Reports**

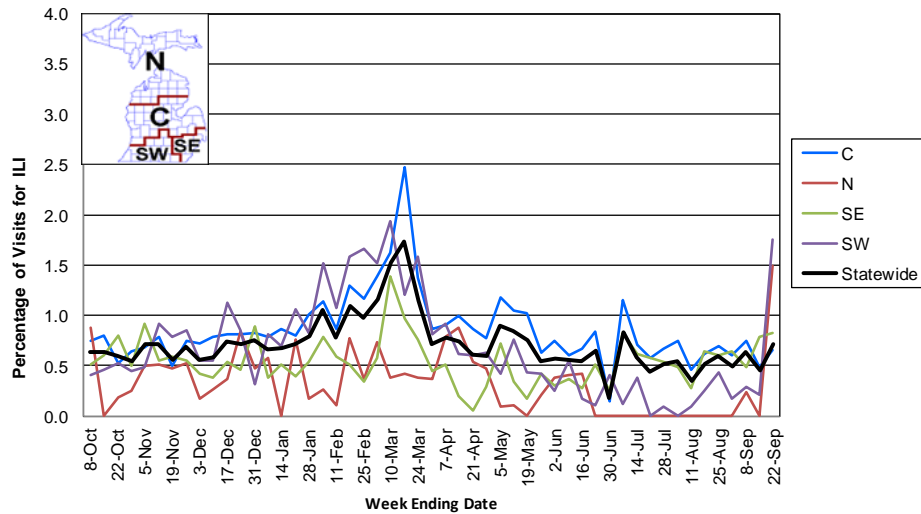
### **Michigan Disease Surveillance System (as of September 27):**

MDSS data for the week ending September 22<sup>nd</sup> indicated that compared to levels from the previous week, aggregate reports remained at the same level, while individual reports remained steady at sporadic levels. The increase in aggregate reports corresponds to the start of the K-12 school year. Individual and aggregate reports are similar to levels seen during the same time period last year.

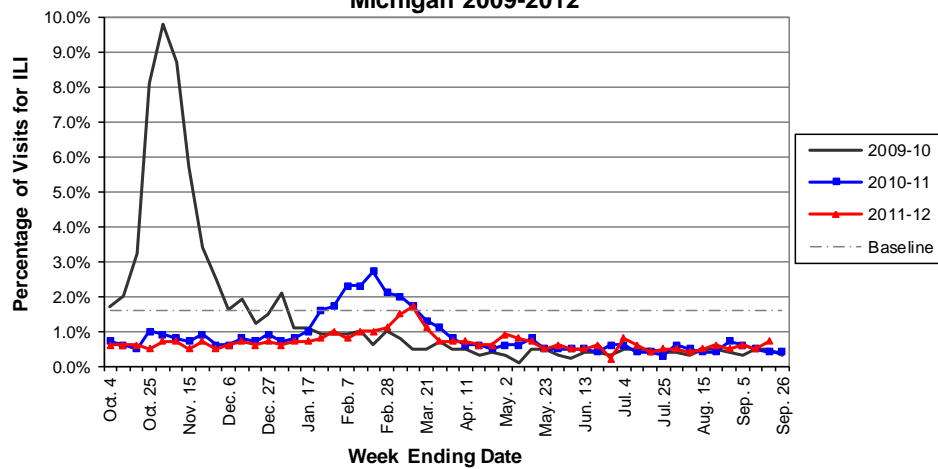
**Emergency Department Surveillance as of September 27):** Compared to levels from the week prior, emergency department visits from constitutional complaints slightly decreased, while respiratory complaints slightly increased. Both constitutional and respiratory complaints are similar to levels reported during the same time period last year. In the past week, there were 5 constitutional alerts in the SW(4) and N(1) Influenza Surveillance Regions and 22 respiratory alerts in the SE(3), SW(6), C(7) and N(4) Regions and 2 statewide alerts.

**Sentinel Provider Surveillance (as of September 27):** During the week ending September 22, 2012, the proportion of visits due to influenza-like illness (ILI) slightly increased to 0.7% overall; this is below the regional baseline of (1.6%). A total of 54 patient visits due to ILI were reported out of 7,577 office visits. Data were provided by thirty sentinel sites from the following regions: C (15), N (4), SE (10) and SW (1). ILI activity increased in three surveillance regions: Central (0.7%), North (1.5%) and Southwest (1.8%); and remained the same in one region: Southeast (0.8%). Please Note: these rates may change as additional reports are received.

**Percentage of Visits for Influenza-like Illness (ILI)  
Reported by Sentinel Providers, Statewide and Regions  
2010-2011 and 2011-12 Flu Seasons**



**Percentage of Visits for Influenza-like Illness (ILI) Reported by the  
US Outpatient Influenza-like Illness Surveillance Network (ILINet):  
Michigan 2009-2012**



As part of pandemic influenza surveillance, CDC and MDCH highly encourage year-round participation from all sentinel providers. New practices are encouraged to join the sentinel surveillance program today! Contact Cristi Carlton at 517-335-9104 or [CarltonC2@michigan.gov](mailto:CarltonC2@michigan.gov) for more information.

**Hospital Surveillance (as of September 27):** The Influenza Hospitalization Surveillance Project provides population-based rates of severe influenza illness in Clinton, Eaton and Ingham counties. In the 2011-12 season, 27 influenza hospitalizations (9 adult, 18 pediatric) were reported in the catchment area.

The MDCH Influenza Sentinel Hospital Network monitors influenza hospitalizations reported voluntarily by hospitals statewide. 3 hospitals (SE, SW) reported for the week ending September 22, 2012. Results are listed in the table below.

Age Group	Hospitalizations Reported During Current Week	Total Hospitalizations 2011-12 Season
0-4 years	0	21
5-17 years	0	23
18-49 years	0	32
50-64 years	0	28
≥65 years	0	43
<b>Total</b>	<b>0</b>	<b>147</b>

**Laboratory Surveillance (as of September 27):** During September 16-22, no positive influenza results were reported by MDCH BOL. For the 2011-12 season (starting Oct. 2, 2011), MDCH has identified 1170 seasonal influenza results and 6 variant influenza H3N2 results:

- Influenza A(H3): 1056 (608SE, 98SW, 303C, 47N)
- Influenza A(H1N1)pdm09: 33 (23SE, 3SW, 5C, 2N)
- Influenza B: 80 (30SE, 32SW, 13C, 5N)
- Influenza A(H3) and B co-infection: 1 (SE)
- Influenza A(H3N2)variant: 6 (2SE, 2SW, 2C)
- Parainfluenza: 6 (1SE, 2SW, 2C, 1N)
- Adenovirus: 3 (3SE)
- RSV: 4 (1SW, 1C, 2N)

8 sentinel labs (SE, SW, C, N) reported for the week ending September 22, 2012. Two labs (SE, C) reported sporadic RSV activity. No labs reported influenza A, influenza B, parainfluenza, or HMPV activity. Testing volumes remain at low levels for most sites, with a few sites showing small increases.

**Michigan Influenza Antigenic Characterization (as of September 27):** For the 2011-12 season, 70 Michigan influenza B viruses have been characterized at MDCH. 8 viruses are B/Brisbane/60/2008-like (included in the 2011-12 vaccine). 62 are B/Wisconsin/01/2010-like (not included in the 2011-12 vaccine).

**Michigan Influenza Antiviral Resistance Data (as of September 27):** For the 2011-12 season, 26 Michigan influenza A(H1N1)pdm09 specimens and 95 influenza A(H3) specimens have been tested for antiviral resistance at MDCH Bureau of Laboratories; all have tested negative for oseltamivir resistance. 11 Michigan influenza A(H3N2), 2 influenza A(H1N1)pdm09, and 4 influenza B specimens have been tested for antiviral resistance at the CDC; all have tested negative for oseltamivir and zanamivir resistance.

CDC has made recommendations regarding the use of antivirals for treatment and prophylaxis of influenza, which are available at <http://www.cdc.gov/flu/professionals/antivirals/index.htm>.

**Influenza-associated Pediatric Mortality (as of September 27):** No pediatric influenza-associated influenza mortalities have been reported to MDCH for the 2011-12 season.

CDC requires reporting of flu-associated pediatric deaths (<18 yrs), including pediatric deaths due to an influenza-like illness with lab confirmation of influenza or any unexplained pediatric death with evidence of an infectious process. Contact MDCH immediately for proper specimen collection. The MDCH protocol is at [www.michigan.gov/documents/mdch/ME\\_pediatric\\_influenza\\_guidance\\_v2\\_214270\\_7.pdf](http://www.michigan.gov/documents/mdch/ME_pediatric_influenza_guidance_v2_214270_7.pdf).

**Influenza Congregate Settings Outbreaks (as of September 27):** No new respiratory outbreaks were reported to MDCH during the past week. 33 respiratory outbreaks (5SE, 4SW, 22C, 2N) have been reported to MDCH during the 2011-12 season; testing results are listed below.

- Influenza A/H3: 15 (4SE, 1SW, 10C)
- Influenza A: 2 (2C)
- Human metapneumovirus: 1 (SW)
- Negative or not tested: 15 (1SE, 2SW, 10C, 2N)

**National (CDC):** Past weekly reports and updated data during the summer months are available online at <http://www.cdc.gov/flu/weekly/summary.htm>

**International (WHO [edited], September 14):** Most countries in the northern temperate zone have either shifted to out of season surveillance schedules or not yet started seasonal reporting. But from available data, seasonal influenza transmission has not been picked up yet in the northern temperate zone. The United States of America is continuing to detect cases of influenza A(H3N2)v in humans and reported three human cases of influenza A(H1N2) variant virus infection. Investigation around the cases indicates no evidence of sustained human-to-human transmission. In the tropical areas of most countries are reporting low or decreasing trends of influenza detections. The exceptions are Nicaragua in the Americas where mainly influenza B is detected and in Asia, India and Thailand are both reporting influenza A(H1N1)pdm09 and B circulation. Influenza activity decreased in most of the temperate countries of the southern hemisphere. Australia, Chile, New Zealand, Paraguay and South Africa, continue to report declines in influenza indicators. Argentina continues to report very low numbers of detections compared to previous seasons.

The entire WHO report is available online at [www.who.int/influenza/surveillance\\_monitoring/updates/latest\\_update\\_GIP\\_surveillance/en/index.html](http://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/index.html).

Weekly reporting to the CDC has ended for the 2011-2012 influenza season.

For additional flu vaccination and education information, the MDCH *FluBytes* newsletter is available at [http://www.michigan.gov/mdch/0,1607,7-132-2940\\_2955\\_22779\\_40563-125027--,00.html](http://www.michigan.gov/mdch/0,1607,7-132-2940_2955_22779_40563-125027--,00.html).

### ***Novel Influenza Activity and Other News***

**WHO Pandemic Phase:** Post-pandemic – Influenza disease activity has returned to levels normally seen for seasonal influenza. It is expected that the pandemic virus will behave as a seasonal influenza A virus. It is important to maintain surveillance and update pandemic preparedness/response plans accordingly.

**Michigan Wild Bird Surveillance (USDA, as of September 27):** For the 2012 season (April 1, 2012-March 31, 2013), highly pathogenic avian influenza H5N1 has not been recovered from the 68 samples tested nationwide. For more information, visit <http://www.nwhc.usgs.gov/ai/>. To learn about avian influenza surveillance in wild birds or to report dead waterfowl, go to the Emerging Disease website at <http://www.michigan.gov/emergingdiseases>.

**International Poultry and Wild Bird Surveillance (OIE):** Reports of avian influenza activity, including summary graphs of avian influenza H5N1 outbreaks in poultry, can be found at the following website: [http://www.oie.int/download/AVIAN%20INFLUENZA/A\\_AI-Asia.htm](http://www.oie.int/download/AVIAN%20INFLUENZA/A_AI-Asia.htm).

For questions or to be added to the distribution list, please contact Susan Peters at [peterss1@michigan.gov](mailto:peterss1@michigan.gov)

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**Table. H5N1 Influenza in Humans – As of August 10, 2012.** [http://www.who.int/influenza/human\\_animal\\_interface/EN\\_GIP\\_20120810CumulativeNumberH5N1cases.pdf](http://www.who.int/influenza/human_animal_interface/EN_GIP_20120810CumulativeNumberH5N1cases.pdf). Downloaded 8/13/2012. Cumulative lab-confirmed cases reported to WHO. Total cases include deaths.

Country	2003-2005		2006		2007		2008		2009		2010		2011		2012		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Azerbaijan	0	0	8	5	0	0	0	0	0	0	0	0	0	0	0	0	8	5
Bangladesh	0	0	0	0	0	0	1	0	0	0	0	0	2	0	3	0	6	0
Cambodia	4	4	2	2	1	1	1	0	1	0	1	1	8	8	3	3	21	19
China	9	6	13	8	5	3	4	4	7	4	2	1	1	1	2	1	43	28
Djibouti	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Egypt	0	0	18	10	25	9	8	4	39	4	29	13	39	15	10	5	168	60
Indonesia	20	13	55	45	42	37	24	20	21	19	9	7	12	10	8	8	191	159
Iraq	0	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	3	2
Lao PDR	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	2	2
Myanmar	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
Nigeria	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1
Pakistan	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0	3	1
Thailand	22	14	3	3	0	0	0	0	0	0	0	0	0	0	0	0	25	17
Turkey	0	0	12	4	0	0	0	0	0	0	0	0	0	0	0	0	12	4
Vietnam	93	42	0	0	8	5	6	5	5	5	7	2	0	0	4	2	123	61
Total	148	79	115	79	88	59	44	33	73	32	48	24	62	34	30	19	608	359